

U.S. Patent Application No. 10/650,124
Amendment dated August 2, 2007
Reply to Office Action of February 9, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original): A method for creating a product specification for a batch, lot, or shipment of particulate material comprising specifying at least one interfacial potential property value for said batch, lot, or shipment of particulate material.
2. (Withdrawn): A method of doing business with a customer comprising using a product specification that includes an interfacial potential property value to request a certain batch, lot, or shipment and/or to provide a certain batch, lot, or shipment of particulate material.
3. (Currently amended): The method of claim 1, wherein said specifying comprises including the interfacial potential property value is included on a product specification sheet, purchase order, invoice, contract, waiver to a contract, or combinations thereof for the batch, lot, or shipment of particulate material.
4. (Original): The method of claim 1, wherein said specifying comprises determining at least one interfacial potential property value for said batch, lot, or shipment of particulate material.
5. (Original): The method of claim 4, wherein said determining comprises measuring or analyzing said batch, lot, or shipment of particulate material.

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6. (Canceled).

7. (Original): The method of claim 1, farther comprising the step of specifying at least one morphological value to said batch, lot, or shipment of particulate material.

8. (Currently amended): The method of claim 7, wherein said specifying comprises including the morphological value ~~is included~~ on a product specification sheet for the batch, lot, or shipment of particulate material.

9. (Currently amended): The method of claim 7 8, wherein the morphological value is selected from surface area, particle size, structure, porosity, or combinations thereof.

10. (Original): The method of claim 1, further comprising the step of specifying at least one chemical value to said batch, lot, or shipment of particulate material.

11. (Currently amended): The method of claim 10, wherein said specifying comprises including the chemical value ~~is included~~ on a product specification sheet for the batch, lot, or shipment of particulate material.

12. (Currently amended): The method of claim 10 11, wherein the chemical value is selected from pH, functional group level, or zeta potential.

13. (Currently amended): The method of claim 1, wherein the particulate material is selected to be

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carbonaceous material.

14. (Currently amended): The method of claim 1, wherein the particulate material is selected to be carbon black.

15. (Currently amended): The method of claim 1, wherein the particulate material is selected to be a metal oxide.

16. (Currently amended): The method of claim 1, wherein the particulate material is selected to be fumed silica.

17. (Currently amended): The method of claim 1, further comprising determining wherein the interfacial potential property value is—determined by an absorptometry method comprising determining volume of a liquid added to said particulate material at maximum torque.

18. (Original): The method of claim 17, wherein the absorptometry method uses a liquid other than DBP or paraffin oil.

19. (Currently amended): The method of claim 18, wherein the absorptometry absorptometry method uses water, ethylene glycol, or mixtures thereof.

20. (Currently amended): The method of claim 1, wherein the interfacial potential property value is determined by a wicking rate method comprising measuring the rate of wicking of a liquid up a bed

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packed with said particulate material.

21. (Currently amended): The method of claim 1, wherein the interfacial potential property value is determined by a yield point method comprising measuring degree of flocculation as Bingham yield point.

22. (Currently amended): The method of claim 1, wherein the interfacial potential property value is determined by a interfacial potential vapor adsorption method comprising measuring a spreading pressure of a gas on said particulate material.

23. (Currently amended): The method of claim 1, wherein the interfacial potential property value is determined by an IGC inverse gas chromatography method comprising measuring retention of time of a gas probe flowing through a bed packed with said particulate material.

24. (Currently amended): The method of claim 7, wherein the morphological value is determined by measuring liquid adsorption, measuring vapor adsorption, ~~microscopy~~ microscopic analysis, or combinations thereof.

25. (Currently amended): The method of claim 7, wherein the morphological value is determined by an adsorption method using comprising measuring the adsorption of iodine, nitrogen, CTAB, DBP, or paraffin oil by said particulate material.

26. (Withdrawn): A method for representing or identifying a grade, brand, or type of particulate

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material comprising assigning at least one interfacial potential property value to said grade, brand, or type of particulate material.

27. (Withdrawn): A method of doing business with a customer comprising requesting and/or providing a certain grade, brand, or type of particulate material using an interfacial potential property value.

28. (Withdrawn): The method of claim 26, wherein said assigning comprises determining at least one interfacial potential property value for said grade, brand, or type of particulate material.

29. (Withdrawn): The method of claim 28, wherein said determining comprises measuring or analyzing said grade, brand, or type of particulate material.

30. (Withdrawn): The method of claim 26, wherein said assigning comprises characterizing grade, brand, or type of particulate material by at least one interfacial potential value.

31. (Withdrawn): The method of claim 26, further comprising the step of assigning at least one morphological value to said grade, brand, or type of particulate material.

32. (Withdrawn): The method of claim 31, wherein the morphological value is surface area, particle size, structure, porosity, or combinations thereof.

33. (Withdrawn): The method of claim 26, further comprising the step of specifying at least one

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chemical value to said grade, brand, or type of particulate material.

34. (Withdrawn): The method of claim 33, wherein the chemical value is pH, functional group level, or zeta potential.
35. (Withdrawn): The method of claim 26, wherein the particulate material is carbonaceous.
36. (Withdrawn): The method of claim 26, wherein the particulate material is carbon black.
37. (Withdrawn): The method of claim 26, wherein the particulate material is a metal oxide.
38. (Withdrawn): The method of claim 26, wherein the particulate material is fumed silica.
39. (Withdrawn): The method of claim 26, wherein the interfacial potential property value is determined by an absorptometry method.
40. (Withdrawn): The method of claim 39, wherein the absorptometry method uses a liquid other than DBP or paraffin oil.
41. (Withdrawn): The method of claim 39, wherein the absorptometry method uses water, ethylene glycol, or mixtures thereof.
42. (Withdrawn): The method of claim 26, wherein the interfacial potential property value is

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determined by a wicking rate method.

43. (Withdrawn): The method of claim 26, wherein the interfacial potential property value is determined by a yield point method.

44. (Withdrawn): The method of claim 26, wherein the interfacial potential property value is determined by a interfacial potential vapor adsorption method.

45. (Withdrawn): The method of claim 26, wherein the interfacial potential property value is determined by an IGC method.

47. (Withdrawn): The method of claim 31, wherein the morphological value is determined by liquid adsorption, vapor adsorption, microscopy, or combinations thereof.

48. (Withdrawn): The method of claim 31, wherein the morphological value is determined by an adsorption method using iodine, nitrogen, CTAB, DBP, or paraffin oil.

49. (Withdrawn): A method for particulate manufacturers to provide particulate materials to customers comprising the step of designating at least one interfacial potential property value to a grade, brand, or type of particulate material.

50. (Withdrawn): The method of claim 49, wherein said designation assists a manufacturer in providing a grade, brand, or type of particulate material that enables a customer to achieve desired

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performance.

51. (Withdrawn): The method of claim 49, wherein said designation assists a customer in obtaining a grade, brand, or type of particulate material that enables the customer to achieve desired performance.

52. (Withdrawn): The method of claim 49, further comprising the step of designating at least one morphological value to said grade, brand, or type of particulate material.

53. (Withdrawn): The method of claim 49, further comprising the step of designating at least one chemical value to said brand or grade of particulate material.

54. (Withdrawn): A method of placing an order for a particulate material comprising the step of placing an order for a grade, brand, or type of particulate material having at least one assigned interfacial potential property value.

55. (Withdrawn): The method of claim 54, further comprising the step of specifying at least one interfacial potential property value for a batch, lot, or shipment of the grade, brand, or type of particulate material.

56. (Withdrawn): The method of claim 55, further comprising the step of specifying at least one morphological value for a batch, lot, or shipment of the grade, brand, or type of particulate material.

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57. (Withdrawn): The method of claim 55, further comprising the step of specifying at least one chemical value for a batch, lot, or shipment of the brand, grade, or type of particulate material.

58. (Withdrawn): A method for improving identification of a grade, type, or brand of particulate material comprising the step of updating an existing product description for the grade, type, or brand of particulate material by adding at least one interfacial potential property value.

59. (Withdrawn): The method of claim 58, wherein said product description is in a catalog, web site, brochure, particulate material literature, advertisement, label, or combinations thereof.

60. (Withdrawn): A product specification for grades, brands, or types of particulate material comprising at least one interfacial potential value.

61. (Withdrawn): The product specification of claim 60, wherein said product specification is part of a web page.

62. (Withdrawn): The product specification of claim 60, wherein said product specification is part of a product catalog.

63. (Withdrawn): The product specification of claim 60, wherein said product specification is part of a sales or purchase order.

64. (Withdrawn): The product specification of claim 60, wherein said product specification is part

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of a contract or a waiver to a contract.

65. (Withdrawn): The product specification of claim 60, further comprising a morphological value, a chemical value, or both to the product specification.

66. (Withdrawn): A method for distinguishing among two or more grades, brands, or types of particulate material comprising identifying interfacial potential property values for said grades, brands, or types of particulate material.

67. (Withdrawn): A method for identification of a grade, type, or brand of particulate material comprising the step of creating a product description for the grade, type, or brand of particulate material that includes at least one interfacial potential property value.

68. (Withdrawn): The method of claim 67, wherein said product description is present in a brochure, product catalog, web site, contract, advertisement, or combinations thereof.